UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/438,645	11/12/1999	BRIAN GARRY JENKIN	JA999-715	9655

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EXAMINER
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ART UNIT	PAPER NUMBER
2157	

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 June 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>2-6,10,12-18 and 22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>2-6,10,12-18 and 22</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This is a fifth office action in response to applicant's amendment filed, 29 June

2004, of application filed, with the above serial number, on 12 November 2000 in which

claims 2 and 10 have been amended. Claims 2-6, 10, 12-18, and 22 are therefore

pending in the application.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

Claim 3 recites the limitation " said server's capacity " in line 3. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

4.   Claims 2-6, 10, and 12-16 are rejected under 35 U.S.C. 102(e) as being

anticipated by Fletcher et al (hereinafter "Fletcher", 6,363,477).

As per Claim 2, Fletcher teaches a method for testing performance of a server running a chosen computing application, wherein Fletcher teaches:

(a) forming on the client a first collection of a number of live maps, wherein such a live map includes i) identification of an application layer transaction for actual processing of the transactions by the server running a chosen computing application, and ii) data for the chosen application, including data formed at the client application layer, and wherein the chosen computing application of the transaction for such a live map is the same for each of the live maps in the collection (at least col. 8 line 53 - col. 9 line 17; application layer of client generating request data packet transmitted to server);

(b) passing the collection from the client application layer to the client middleware layer (at least col. 8 line 53 - col. 9 line 4);

(c) transmitting a first processing load from the client to the server running said computing application, wherein the processing load includes the first collection of the number of said live maps for a plurality of said transactions (at least col. 9, lines 5-17; col. 10, lines 10-29; client sending data packets for network application of interest);

(d) measuring one or more performance criteria resulting from said server actually processing said load, wherein the measuring of one or more performance criteria includes: i) time stamping such a live map by the client before the transmitting of such a processing load to the server and ii) receiving, by the client, a reply map for the live map from the server after the server processes the load, wherein the reply map includes server processing time measured by the server so that the client is able to compute elapsed time from a client perspective and compare ones of the client-

perspective elapsed times to ones of the server processing times for specific ones of

the application layer transactions to determine server and network latency (at least col.

12 line 40 - col. 13 line 30; network latency calculated from network round trip time

minus application processing time); and

   (e) changing the first collection of live maps and transmitting a next processing

load from the client to the server, the next processing load including the changed

collection of live maps in order to selectively vary said processing loads, wherein the

changing includes changing the number of said live maps and types of said transactions

in the first collection of live maps transmitted to said server, and wherein said measuring

step (d) is repeated for the next processing load (accumulating statistics for

measurements and storing in user-history table for different intervals of time or

applications) (at least col. 11, lines 40-48; col. 16, lines 36-59; col. 17, lines 12-34).

5.   As per Claim 3.

   (f) comparing performance criteria against predetermined performance measures

to determine whether said server's capacity is satisfactory (minimum, maximum,

average and median statistics) (at least col.11, lines 40-48).

6.   As per Claim 4.

   performance criteria include average response time for a transaction within such

a load (average time) (at least col. 11, lines 40-48).

7.   As per Claim 5.

performance criteria include the proportion of server CPU time taken by a

transaction of such a load (application processing time) (at least col. 12 line 54 - col. 13

line 4).

8.   As per Claim 6.

wherein step (d) comprises for each transaction within said load, returning a

result to said client (at least col. 13, lines 19-57; request packet and correlated response

packet); and

measuring, by said client or by said server, the one or more performance criteria

responsive to the processing of said load by said server (at least col. 12 line 54 - col. 13

line 30).

9.   As per Claim 10, Fletcher teaches a system for testing server performance,

wherein Fletcher teaches:

(a) a server running a chosen computing application (at least col. 10, lines 10-29;

network application);

(b) a client emulation server ("client") representing a plurality of individual client

computing stations (single client representing plurality of clients), wherein a computing

operation performed by the client resides in an application layer that communicates with

a middleware layer on the client, said client emulation server including a first collection

of a number of live maps, wherein a live map includes i) identification of an application

layer transaction for actual processing of the transactions by the server running the

chosen computing application, and ii) data for the chosen application, and wherein the

chosen computing application of the transaction for such a live map is the same for

each of the live maps in the collection (at least col. 8 line 53 - col. 9 line 17; col. 8, lines

43-52; application layer of client generating request data packet transmitted to server);

and

(c) a communications connection between said client and said server (at least

col. 3, lines 43-47), wherein said client is operable to transmit a first processing load to

said server via said communications connection, the processing load including the first

collection of said live maps for a plurality of said transactions, said server is operable to

actually process said load, wherein the measuring of one or more performance criteria

includes: i) time stamping such a live map by the client before the transmitting of such a

processing load to the server and ii) receiving, by the client, a reply map for the live map

from the server after the server processes the load, wherein the reply map includes

server processing time measured by the server so that the client is able to compute

elapsed time from a client perspective and compare ones of the client-perspective

elapsed times to ones of the server processing times for specific ones of the application

layer transactions to determine server and network latency; and wherein said client is

further operable to change the first collection of live maps and transmit a next

processing load to the server, the next processing load including the changed collection

of live maps, in order to selectively vary said processing loads, wherein the changing

includes changing the number of said live maps and types of said transactions in the

first collection of live maps, and the first server or client is operable to repeat the

measuring for the next processing load (at least col. 12 line 40 - col. 13 line 30; col. 11,

lines 40-48; col. 16, lines 36-59; col. 17, lines 12-34; network latency calculated from

network round trip time minus application processing time and accumulating statistics

for measurements and storing in user-history table for different intervals of time or

applications).

10.   As per Claim 12

wherein said server compares said measured performance criteria against

predetermined performance measures to determine whether the server has satisfactory

capacity (minimum, maximum, average and median statistics) (at least col.11, lines 40-

48).

11.   As per Claim 13.

wherein said server stores a file of said performance data measures (at least col.

10, lines 55-67; col. 11, lines 31-48; shared buffer/ table).

12.   As per Claim 14.

wherein said client stores a file of said performance data measures (at least col.

10, lines 55-67; col. 11, lines 31-48; shared buffer/ table).

13.   As per Claim 14.

server produces an output representing performance data measures (at least

Fig. 11; col. 18, lines 45-56; report performance stats).

14.   As per Claim 15.

wherein said performance data criteria includes the average response time for a

transaction within one of said loads (average time) (at least col. 11, lines 40-48).

15.   As per Claim 16.

wherein said performance data criteria includes the proportion of server CPU

time taken by such a transaction of said loads (application processing time) (at least col.

12 line 54 - col. 13 line 4).

Claim Rejections - 35 USC § 103

16.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

17.   Claims 17-18 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Fletcher in view of Wang (hereinafter "Wang", 6,446,028).

18.   As per Claim 17.

Fletcher fails to explicitly disclose wherein said server has connection to one or

more database servers, said database servers being operable to execute portions of

said load transactions. However, the use and advantages for using such databases is

well known to one skilled in the art at the time the invention was made as evidenced by

the teachings of Wang. Wang teaches servers communicating with databases and

clients and the network latency associated (at least Wang Fig. 5, 9). Therefore, it would

have been obvious to one of ordinary skill in the art at the time the invention was made

to incorporate the use of Wang's databases into Fletcher's system as this is very well

known in the art and servers are very commonly executing and communicating with

databases and Fletcher teaches the client using network applications including

database management systems.

19.   As per Claim 18.

wherein said server comprises a plurality of servers (at least Fletcher col. 8, lines

43-52),

Fletcher fails to explicitly disclose each of said server plurality has connection to

one or more database servers, said database servers being operable to execute

portions of said load transactions. However, the use and advantages for using such

databases is well known to one skilled in the art at the time the invention was made as

evidenced by the teachings of Wang. Wang teaches servers communicating with

databases and clients and the network latency associated (at least Wang Fig. 5, 9; col.

11, lines 1-2). Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to incorporate the use of Wang's databases into

Fletcher's system as this is very well known in the art and servers are very commonly

executing and communicating with databases and Fletcher teaches the client using

network applications including database management systems.

20.   As per Claim 22.

Fletcher fails to explicitly disclose at least one database in communication with

said server. However, the use and advantages for using such databases is well known

to one skilled in the art at the time the invention was made as evidenced by the

teachings of Wang. Wang teaches servers communicating with databases and clients

and the network latency associated (at least Wang Fig. 5, 9). Therefore, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to

incorporate the use of Wang's databases into Fletcher's system as this is very well

known in the art and servers are very commonly executing and communicating with

databases and Fletcher teaches the client using network applications including

database management systems.

Response to Arguments

Applicant's arguments with respect to claims 2 and 10 have been considered but

are moot in view of the new ground(s) of rejection.

Conclusion

21.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Newly cited Burdick et al and Poulin in addition to previously

cited Friedrich et al, Kaler et al, Mukherjee et al (paragraph 23), Baghai et al, Caccavale

et al, Davies et al, Sherman et al, Chen et al, Wagle, Dantressangle, Braddy, Congdon,

Hoyer et al, Eilert et al, and Richardson are cited for disclosing pertinent information

related to the claimed invention. Applicants are requested to consider the prior art

reference for relevant teachings when responding to this office action.

22.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Gregory G Todd whose telephone number is (571)272-

4011. The examiner can normally be reached on Monday - Friday 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703)308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory Todd

Patent Examiner

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